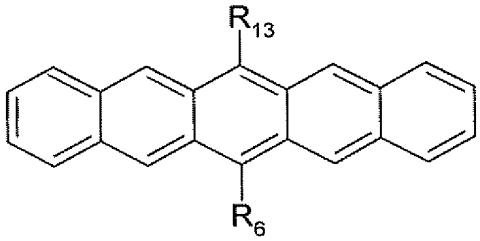
The listing of claims will replace all prior versions, and listings, of claims in the application:

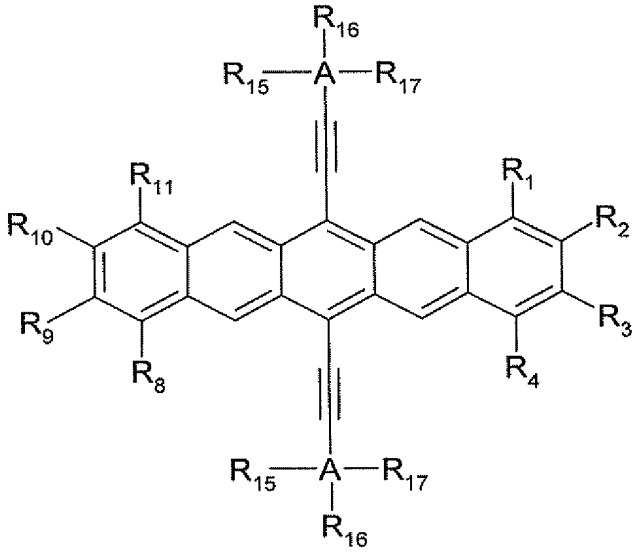
Listing of Claims:

1. (Cancelled)

2. (Currently Amended) An organic semiconducting layer formulation, comprising an organic binder which has a permittivity, ε, at 1,000 Hz of 3.3 or less; and a polyacene compound of ~~as claimed in claim 1, wherein the polyacene compound is a compound of formula B~~ Formula 1 or 8 or an isomer thereof



Formula 1 ~~Formula B~~



Formula 8

wherein, R_6 and R_{13} in the compound of ~~formula B~~ Formula 1 and R_1, R_2, R_3, R_4, R_8, R_9, R_{10}, R_{11}, R_{15}, R_{16}, and R_{17} in the compound of ~~formula~~ Formula 8 are each independently the same

or different and each independently represents: H; an optionally substituted C_1-C_{40} carbyl or hydrocarbyl group; an optionally substituted C_1-C_{40} alkoxy group; an optionally substituted C_6-C_{40} aryloxy group; an optionally substituted C_7-C_{40} alkylaryloxy group; an optionally substituted C_2-C_{40} alkoxycarbonyl group; an optionally substituted C_7-C_{40} aryloxycarbonyl group; a cyano group (-CN); a carbamoyl group (-C(=O)NH2); a haloformyl group (-C(=O)-X, wherein X represents a halogen atom); a formyl group (-C(=O)-H); an isocyano group; an isocyanate group; a thiocyanate group or a thioisocyanate group; an optionally substituted amino group; a hydroxy group; a nitro group; a CF_3 group; a halogen group; or an optionally substituted silyl group; and wherein independently each pair of R_1 and R_2, R_2 and R_3, R_3 and R_4, R_8 and R_9, R_9 and R_{10}, R_{10} and R_{11}, R_{15} and R_{16} and R_{16} and R_{17} may be cross-bridged with each other to form a C_4-C_{40} saturated or unsaturated ring, which saturated or unsaturated ring may be intervened by an oxygen atom, a sulphur atom or a group shown by formula: -N(R_a)- (wherein R_a is a hydrogen atom or a hydrocarbon group), or may optionally be substituted; and wherein A represents Silicon or Germanium.

3-4. (Cancelled)

5. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein two or more of R_1, R_2, R_3, R_4, R_8, R_9, R_{10}, R_{11}, R_{15}, R_{16}, and R_{17} in the compound of Formula 8 ~~R_1 to R_{12}~~ are optionally substituted C_1-C_{40} hydrocarbyl groups, each of which is a saturated or unsaturated acyclic group, or a saturated or unsaturated cyclic group.

6-8. (Cancelled)

9. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the organic binder is an organic binder resin that has a permittivity at 1,000 Hz of less than 3.0.

10. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the organic binder is an organic binder resin that has a permittivity at 1,000 Hz greater than 1.7.

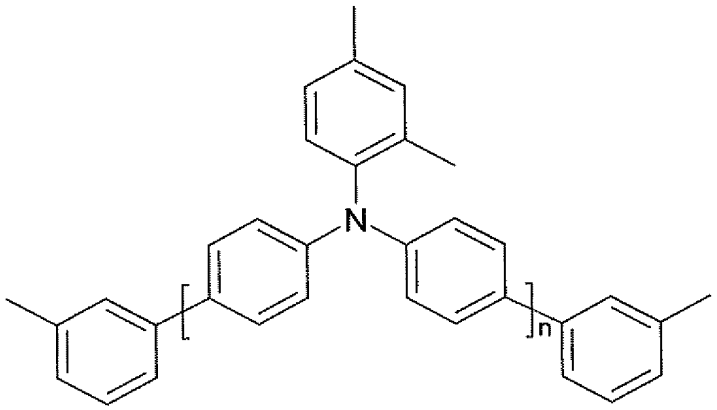
11. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the organic binder is an organic binder resin that is an insulating binder.

12. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 11, wherein the insulating binder is poly(α-methylstyrene), polyvinylcinnamate, poly(4-vinylbiphenyl), poly(4-methylstyrene) or linear olefin and cycloolefin(norbornene)copolymer.

13. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the organic binder is an organic binder resin that is a semiconductor binder.

14. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 13, wherein the semiconductor binder comprises a number average molecular weight (M_n) of at least 1500-2000.

15. (Previously Presented) An organic semiconducting layer formulation as claimed in claim 13, wherein the semiconductor binder is poly(9-vinylcarbazole) or a triarylamine compound of the following formula



wherein n=10.7.

16. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the formulation further comprises a solvent.

17. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 16, wherein the solvent is ~~xylene(s), toluene, tetralin or odichlorobenzene~~ CH_2Cl_2, $CHCl_3$, monochlorobenzene, o-dichlorobenzene, tetrahydrofuran, anisole, morpholine, toluene, o-xylene, m-xylene, p-xylene, 1,4-dioxane, acetone, methylethylketone, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2,2-tetrachloroethane, ethyl acetate, n-butyl acetate, dimethylformamide, dimethylacetamide, dimethylsulfoxide, tetralin, decalin, a substituted or non-substituted xylene compound, di-C_{1-2}-alkyl formamide, substituted or non-substituted anisole or a phenol-ether compound, a substituted heterocycle, a substituted pyridine, pyrazine, pyrimidine, or pyrrolidinone, substituted or non-substituted *N,N*-di-C_{1-2}-alkylaniline, a fluorinated or chlorinated aromatic compound, a benzene ring substituted by one or more substituents wherein the total number of carbon atoms among the one or more substituents is at least three, a benzene compound substituted with a propyl group or three methyl groups, wherein in either case there are at least three carbon atoms in total in the substituent(s), dodecylbenzene, 1-methyl-4-tert-butylbenzene, terpineol, limonene, isodurene, terpinolene, cymene, diethylbenzene or a mixture thereof.

18. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the ratio of polyacence compound to binder is 20:1 to 1:20 by weight.

19. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, which has a solids content of 0.1 to 10% by weight.

20. (Currently Amended) A process for preparing an organic semiconducting layer formulation as claimed in claim 2 ~~1~~, comprising (i) depositing on a substrate a liquid layer of a mixture which comprises the polyacene compound, the organic binder is an organic binder resin or precursor thereof and optionally a solvent, and (ii) forming from the liquid layer a solid layer which is the organic semiconducting layer.

21. (Currently Amended) In an electronic device, wherein the improvement comprises the presence of an organic semiconducting layer formulation as claimed in claim 2 ~~1~~ in said electronic device.

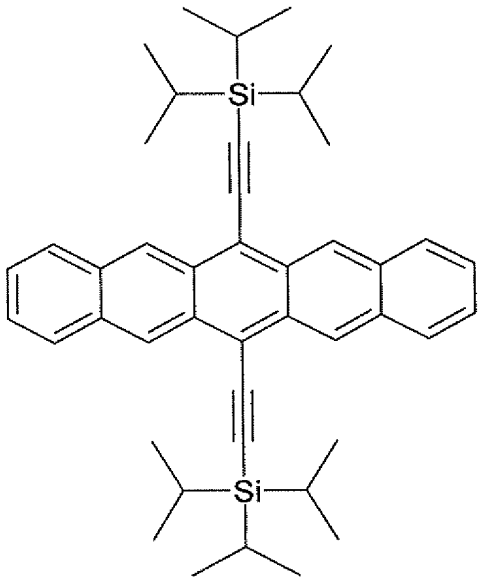
22. (Currently Amended) A field effect transistor (FET), organic light emitting diode (OLED), photodetector, chemical detector, photovoltaic cell (PVs), capacitor sensor, logic circuit, display or memory device, comprising an organic semiconducting layer formulation as claimed in claim 2 ~~1~~.

23. (Previously Presented) An OFET device, comprising an organic semiconducting layer formulation, wherein the organic semiconducting layer formulation comprises:

a compound of Formula 1;

a binder; and

solvent,



Formula 1

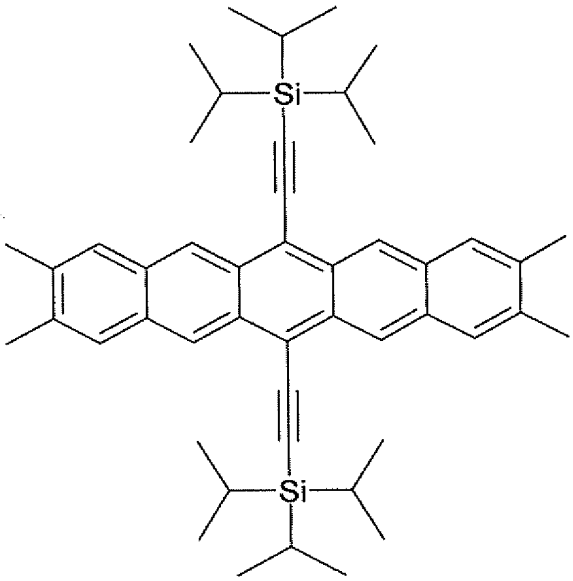
wherein the binder is poly(α-methylstyrene), linear olefin and cycloolefin(norbornene)copolymer, poly(4-methylstyrene), polystyrene or polystyrene-co-α-methylstyrene; and the solvent is toluene, ethylcyclohexane, anisole or pxylene.

24. (Previously Presented) An OFET device, comprising an organic semiconducting layer formulation, wherein the organic semiconducting layer formulation comprises:

a compound of Formula 2;

a binder; and

solvent,



Formula 2

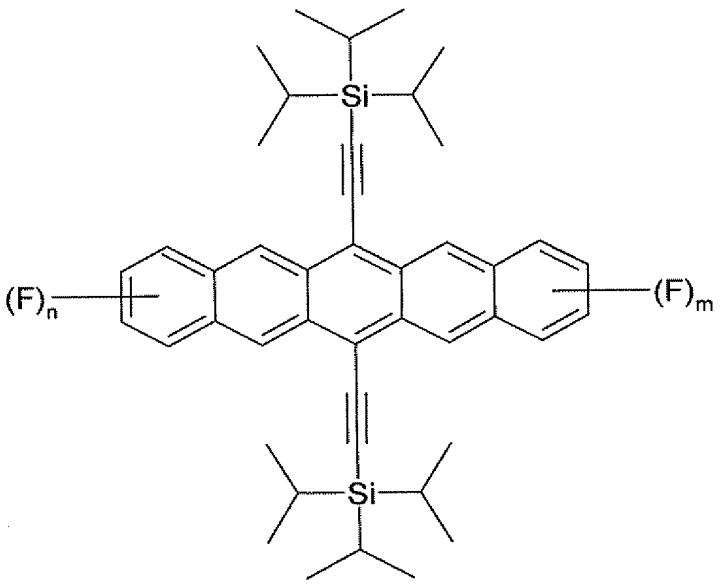
wherein the binder is poly(α-methylstyrene), polyvinylcinnamate, or poly(4-vinylbiphenyl); and the solvent is 1,2-dichlorobenzene.

25. (Currently Amended) An OFET device, comprising an organic semiconducting layer formulation, wherein the organic semiconducting layer comprises:

a compound of Formula 3;

a binder; and

a solvent,

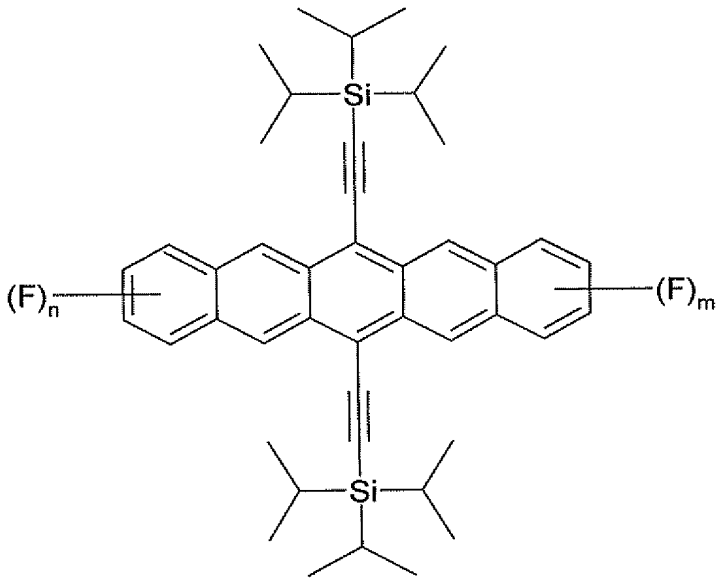


Formula 3 ~~(3)~~

wherein :

n and m are each independently 0,1, 2, 3 or 4; the binder is poly(α-methylstyrene); and the solvent is toluene.

26. (Currently Amended) A compound of Formula 3



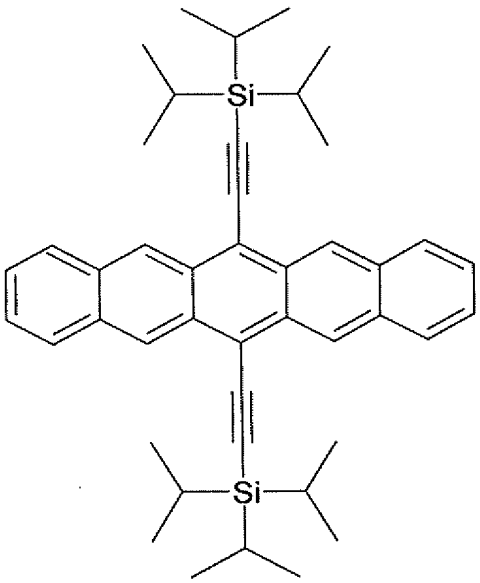
Formula 3 ~~(3)~~

wherein n and m are each independently 1 or 3.

27. (Currently Amended) An organic semiconducting layer formulation as claimed in claim 2 ~~1~~, wherein the halogen group is Cl, Br or F.

28. (Currently Amended) An organic semiconducting layer formulation, comprising an organic binder which has a permittivity, ε, at 1,000 Hz of 3.3 or less; and a polyacene compound which is

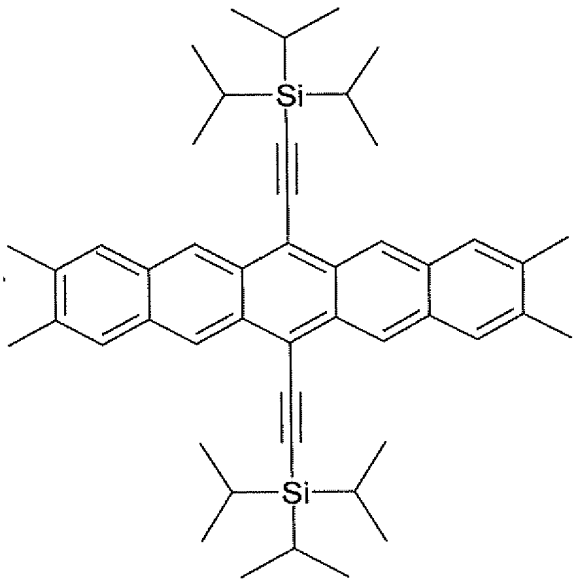
a) 6, 13-bis(triisopropylsilylethynyl)pentacene of Formula 1,



Formula 1;

or

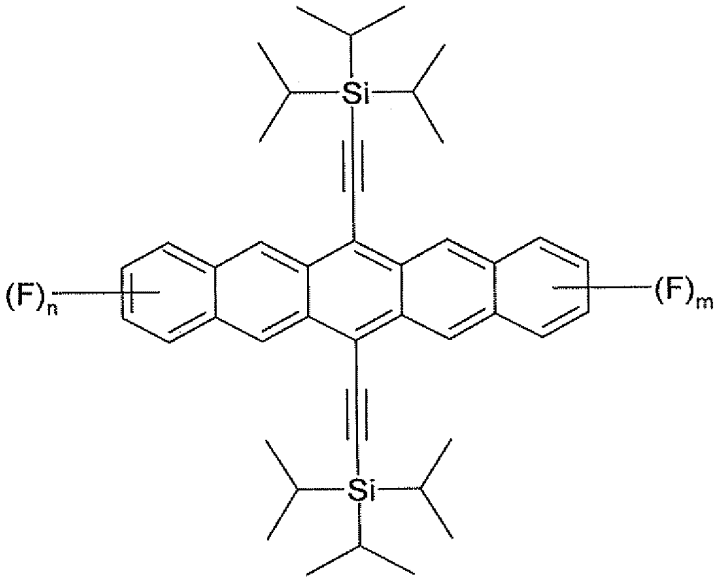
b) 2,3,9,10-tetramethyl,6,13-bis (triisopropylsilylethynyl)pentacene of Formula 2:



Formula 2;

or

c) of Formula 3:



Formula 3

wherein n and m are each independently 0,1, 2, 3 or 4.

29. (New) A formulation as claimed in claim 2, wherein in the compound of Formula 1 R_6 and R_{13} comprise an optionally substituted ethynyl group.

30. (New) A formulation as claimed in claim 29, wherein the optional

substituents on the said ethynyl group are silyl of the formula $Si(R_{15}R_{16}R_{17})$, wherein each of R_{15}, R_{16} and R_{17} , which may be the same or different, independently represents hydrogen; a C_1-C_{40}-alkyl group which is optionally substituted with a halogen atom; a C_6-C_{40}-aryl group which is optionally substituted with a halogen atom; a C_6-C_{40}-aralalkyl group which is optionally substituted with a halogen atom; a C_1-C_{40}-alkoxy group which is optionally substituted with a halogen atom; or a C_6-C_{40}-arylalkyloxy group which is optionally substituted with a halogen atom.

31. (New) A formulation as claimed in claim 30, wherein, R_{15}, R_{16} and R_{17} are each independently optionally substituted C_{1-10}-alkyl or optionally substituted C_{6-10}-aryl.

32. (New) A formulation as claimed in claim 2, wherein the compound of Formula 1 or 8 is

6,13-bis(trimethylsilylethynyl)pentacene,
6,13-bis(triethylsilylethynyl)pentacene,
6,13-bis(tripropylsilylethynyl)pentacene,
6,13-bis(dimethylethylsilylethynyl)pentacene,
6,13-bis(diethylmethylsilylethynyl)pentacene,
6,13-bis(dimethylpropylsilylethynyl)pentacene,
6,13-bis(dimethylisopropylsilylethynyl)pentacene,
6,13-bis(dipropylmethylsilylethynyl)-pentacene,
6,13-bis(diisopropylmethylsilylethynyl)pentacene,
6,13-bis(dipropylethyl-silylethynyl)pentacene,
6,13-bis(diisopropylethylsilylethynyl)pentacene,
6,13-bis(diethylisopropylsilylethynyl)pentacene,
6,13-bis(triisopropylsilylethynyl)pentacene ,
6,13-bis(trimethoxysilylethynyl)pentacene,
6,13-bis(triethoxysilylethynyl)pentacene,
6,13-bis(triphenylsilylethynyl)pentacene,
6,13-bis(diphenylisopropylsilylethynyl)pentacene,
6,13-bis(diisopropylphenylsilylethynyl)pentacene,
6,13-bis(diphenylethylsilylethynyl)-pentacene,
6,13-bis(diethylphenylsilylethynyl)pentacene,

6,13-bis(diphenylmethyl-silylethynyl)pentacene,

6,13-bis(triphenoxysilylethynyl)pentacene,

6,13-bis(dimethyl-methoxysilylethynyl)pentacene,

6,13-bis(dimethylphenoxysilylethynyl)pentacene,

6,13-bis(methylmethoxyphenylethynyl)pentacene,

6,13-bis(cyclopentamethylenesilane)-pentacene,

6,13-bis(cyclotetramethylenesilane)pentacene,

2,3,9,10-tetramethyl-6,13-bis(triisopropylsilylethynyl)pentacene,

1,8-difluoro-6,13-bis(triisopropylsilylethynyl) pentacene,

1,11-difluoro-6,13-bis(triisopropylsilylethynyl)pentacene, or

2,3,9,10-tetrafluoro-6,13-bis(triisopropylsilyl ethynyl) pentacene.

33. (New) A formulation as claimed in claim 2, wherein in the compound of Formula 8, R_2, and R_3 and R_9 and R_{10} together with the carbon atoms to which they are attached form a C_4-C_{40} saturated or unsaturated ring, or an optionally substituted C_4-C_{10} saturated or unsaturated ring intervened by one or more oxygen or sulphur atoms or by a group represented by formula -$N(R_a)$, wherein R_a is a hydrogen atom or a hydrocarbon group.

34. (New) A formulation as claimed in claim 2, wherein in the compound of Formula 8, R_{15}, R_{16} and R_{17} are the same optionally substituted C_{1-10} alkyl group.

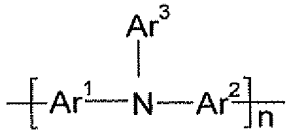
35. (New) A formulation as claimed in claim 2, wherein in the compound of Formula 8, R_2, R_3, R_9 and R_{10} are C_{1-10}-alkyl, or one or more of R_1, R_2, R_3, R_4, R_8, R_9, R_{10} and R_{11} is F, or R_1, R_2, R_3, R_4, R_8, R_9, R_{10} and R_{11} are each H.

36. (New) A formulation as claimed in claim 2, wherein the binder is polystyrene, poly(α-methylstyrene), poly(α-vinylnaphtalene), poly(vinyltoluene), polyethylene, cis-polybutadiene, polypropylene, polyisoprene, poly(4-methyl-1-pentene), poly (4-methylstyrene), poly(chorotrifluoroethylene), poly(2-methyl-1,3-butadiene), poly(p-xylylene), poly(α-α-α'-α' tetrafluoro-p-xylylene), poly[1,1-(2-methyl propane)bis(4-phenyl)carbonate], poly(cyclohexyl methacrylate), poly(chlorostyrene), poly(2,6-dimethyl-1,4-phenylene ether), polyisobutylene, poly(vinyl cyclohexane), poly(vinylcinnamate), poly(4-vinylbiphenyl), poly(ethylene/tetrafluoroethylene),

poly(ethylene/chlorotrifluoroethylene), fluorinated ethylene/propylene copolymer, polystyrene-co-α-methylstyrene, ethylene/ethyl acrylate copolymer, poly(styrene/10%butadiene), poly(styrene/15%butadiene), poly(styrene/2,4 dimethylstyrene), poly(1,3-butadiene), polyphenylene, branched or non-branched polystyrene-block-polybutadiene, polystyrene-block(polyethylene-ran-butylene)-block-polystyrene, polystyrene-block-polybutadiene-block-polystyrene, polystyrene-(ethylene-propylene)-diblock-copolymer, poly(propylene-co-ethylene), poly(styrene-co-methylmethacrylate) or a cyclic olefin copolymer.

37. (New) A formulation as claimed in claim 2, wherein the binder is polystyrene, poly(α-methylstyrene), poly(α-vinylnaphtalene), poly(vinyltoluene), polyethylene, cis-polybutadiene, polypropylene, polyisoprene, poly(4-methyl-1-pentene), poly (4-methylstyrene), poly(chorotrifluoroethylene), poly(2-methyl-1,3-butadiene), poly(p-xylylene), poly(α-α-α'-α' tetrafluoro-p-xylylene), poly[1,1-(2-methyl propane)bis(4-phenyl)carbonate], poly(cyclohexyl methacrylate), poly(chlorostyrene), poly(2,6-dimethyl-1,4-phenylene ether), polyisobutylene, poly(vinyl cyclohexane), poly(vinylcinnamate), poly(4-vinylbiphenyl), poly(ethylene/tetrafluoroethylene), poly(ethylene/chlorotrifluoroethylene), fluorinated ethylene/propylene copolymer, polystyrene-co-α-methylstyrene, ethylene/ethyl acrylate copolymer, poly(styrene/10%butadiene), poly(styrene/15%butadiene), poly(styrene/2,4 dimethylstyrene), poly(1,3-butadiene), polyphenylene, branched or non-branched polystyrene-block-polybutadiene, polystyrene-block(polyethylene-ran-butylene)-block-polystyrene, polystyrene-block-polybutadiene-block-polystyrene, polystyrene-(ethylene-propylene)-diblock-copolymer, poly(propylene-co-ethylene), or poly(styrene-co-methylmethacrylate).

38. (New) A formulation as claimed in claim 2, wherein the binder has repeat units of Formula 10



Formula 10

wherein Ar^1, Ar^2 and Ar^3, which may be the same or different, each represent, independently

if in different repeat units, an optionally substituted aromatic group (mononuclear or polynuclear) and n is at least 6.

39. (New) A formulation as claimed in claim 38, wherein Ar^1, Ar^2 and Ar^3, which may be the same or different, each represent, independently if in different repeat units, a phenyl, phenylene, napthyl, naphthylene, or biphenyl group

40. (New) A formulation as claimed in claim 2, which contains two or more different polyacene compounds of Formula 1 or 8.

41. (New) A formulation as claimed in claim 2, which contains two or more organic binders.

42. (New) In an electronic device, wherein the improvement comprises the presence of an organic semiconducting layer in said electronic device which is prepared from an organic semiconducting layer formulation as claimed in claim 2 by a process which comprises: (i) depositing on a substrate a liquid layer of a mixture which comprises the polyacene compound of Formula 1 or 8, the organic binder or precursor thereof, and optionally a solvent, and (ii) forming from the liquid layer a solid layer which is the organic semiconducting layer.

43. (New) An electronic device as claimed in claim 40, wherein the binder is formed in situ by mixing or dissolving the polyacene compound in a precursor of the binder, optionally in the presence of a solvent, and depositing the mixture or solution on a substrate to form a liquid layer and then curing the liquid monomer, oligomer or crosslinkable polymer to produce a solid layer.

44. (New) An electronic device as claimed in claim 40, wherein the organic semiconducting layer is incorporated into a final device structure by dip coating, spin coating, ink jet printing, letter-press printing, screen printing, doctor blade coating, roller printing, reverse-roller printing; offset lithography printing, flexographic printing, web printing, spray coating, brush coating or pad printing.

45. (New) An organic semiconducting layer formulation as claimed in claim 16, wherein the solvent is CH_2Cl_2, $CHCl_3$, monochlorobenzene, o-dichlorobenzene, tetrahydrofuran, anisole, morpholine, toluene, o-xylene, m-xylene, p-xylene, 1,4-dioxane, acetone, methylethylketone, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2,2-tetrachloroethane, ethyl acetate, n-butyl acetate, dimethylformamide, dimethylacetamide, dimethylsulfoxide, tetralin, decalin, di-C_{1-2}-alkyl formamide, *N,N*-di-C_{1-2}-alkylaniline, a benzene ring substituted with a propyl group or three methyl groups, dodecylbenzene, 1-methyl-4-tert-butylbenzene, terpineol, limonene, isodurene, terpinolene, cymene, diethylbenzene or a mixture thereof.